

CLAIMS:-

1. An electrical power connector, said connector including a power inlet, a first power outlet coupled to said power inlet, at least one second power outlet which is coupled to said power inlet by switch means, and switch control means for controlling the state of the switch means in accordance with the average current supplied to the first power outlet.
2. An electrical power connector, wherein the switch control means includes current sensing means for sensing AC current supplied to the first power outlet.
3. An electrical power connector as claimed in claim 1 or claim 2, including a circuit breaker which interrupts supply of electric power to the outlets when excess current is drawn.
4. An electrical power connector as claimed in any preceding claim, wherein means is provided for protecting equipment connected to the connector against high voltage spikes or other transients in the electric supply when applied to the connector.
5. An electrical power connector as claimed in any preceding claim, wherein the switch control means includes a current averaging circuit which produces output signals representative of the average AC current supplied to the first power outlet.
6. An electrical power connector as claimed in claim 5, wherein the switch control means includes a threshold circuit which compares the output signals of the current averaging circuit to a reference so as to produce a switching signal when a predetermined difference is detected at the input of the threshold circuit.
7. An electrical power connector as claimed in any preceding claim, wherein the switch means includes a relay coil and contacts and wherein the switch control means includes a relay driver circuit which is coupled between the output of the threshold circuit and the relay coil.

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8. An electrical power connector as claimed in claim 2, or any one of claims 3 to 7 as directly or indirectly appended thereto, wherein the current sensing means includes an adjustable gain control means which can be adjusted so that the switch means changes state at a point corresponding to a predetermined electrical load connected to the first power outlet.
9. An electrical power connector as claimed in any preceding claim, including a delay or low pass filter coupled to in use at least partially inhibit turning on or off of the switch means caused by transient conditions in the current at the first power outlet.
10. A method of controlling the supply of power to a plurality of electrical loads, the method including the steps of monitoring the average current supplied to a first of said loads, controlling switch means coupled to the loads other than said first load in accordance with said monitored average current to thereby control supply of power to the loads other than said first load.
11. A method of controlling the supply of power to a plurality of electrical loads, wherein the first load has an off or standby state and wherein the step of controlling the switch means is adjusted so that the switch means is off when the first load is in the off or standby state.
12. A method as claimed in claim 11, wherein said off state is a state where no current is drawn by the first load.
13. A method as claimed in any one of claims 10 to 12, wherein, in the standby state, current drawn by the first load is substantially less than the current drawn when the first load is in an operative state.
14. A method as claimed in any one of claims 10 to 13, including the step of monitoring the average current supplied to the first of said loads in a standby state and

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adjusting control means for controlling said switch means so that when there is an increase in average current from said standby state, said switch means changes state to thereby supply power to loads other than said first load.

- 5 15. An electrical power connector having an electrical power outlet, and electrical circuitry connected to the outlet, the outlet being removably retained between two parts of a casing of the connector which are releasably connected together, whereby, on release of the connection between the parts, the outlet is released to permit replacement thereof.
- 10 16. An electrical power connector as claimed in claim 15, wherein the parts of the casing, and the outlet, are formed so as that, when the outlet is retained between the parts of the casing, movement of the outlet inwardly and outwardly and rotationally with respect to the casing is prevented by engagement of peripheral protrusions or other portions of the outlet with portions of the casing.
- 15 17. An electrical power connector as claimed in claim 15 or claim 16, wherein one of said casing parts carries the electrical circuitry, and the other is arranged for mounting of the connector on a surface.
- 20 18. An electrical power connector as claimed in any one of claims 14 to 17, wherein the outlet is one of two power outlets each removably retained between the casing parts.
19. An electrical power connector as claimed in claim 18, wherein the outlets are at opposite ends of the casing.
- 25 20. An electrical power connector having an electrical power inlet and an electrical power outlet, and electrical circuitry interconnecting these, the connector having a casing being formed from two parts releasably connected together, one said part carrying the electrical circuitry, and the other being arranged for mounting of the connector on a
- 30 surface.

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21. A connector substantially as hereinbefore described, with reference to the accompanying drawings.

22. A method of controlling the supply of power to a plurality of electrical loads,
5 substantially as hereinbefore described, with reference to the accompanying drawings.